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## THE

# MEDICAL AND SURGICAL REPORTER.

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## ORIGINAL DEPARTMENT.

### LECTURE.

#### THE HYGIENE OF PRIMARY SCHOOLS.

BY DR. R. J. O'SULLIVAN,  
Of New York City.

[We are permitted to make the following extracts from a lecture on this subject by the above author, delivered before the Academy of Medicine of New York, to which we add some remarks by other eminent physicians of that city.]

#### AGE OF ADMISSION.

What should be the minimum age for admission to school? Some very high authorities would have it seven years, saying that no intellectual work should be required of a child before it has attained that age. We may grant the conclusion here while questioning the premises. Seven years is an early enough age for a child to be sent to school, *not* because the mental exertion would be injurious to its healthy intellectual growth, but because school life, under its present hygienic surroundings, is very unfavorable to the child's physical development.

If intellectual work were the thing that does injury to the infant mind at school, then no child could ever reach even its seventh year, school or no school. During those early years it is that the observing faculties are most wakeful, and it is then that the groundwork of all our philosophies, of all our religions, of all our fixed ideas is laid. Acquisition of knowledge is going on at every instant, and the avenues between

the outer world and the mind of the child are free and open as they will never be again. The child's mind is unfolding like a flower to the sun, and knowledge is its very life. But this acquisition of knowledge is not a task. It proceeds according to Nature's methods, and attains its ends without jar or strain. It cannot, therefore, be the intellectual work of the school-room *per se* which is injurious to the healthy growth of the youthful intellect; it must be our faulty methods of instruction.

Viewing the question in the abstract, therefore, I should say that intellectual occupation or work is not inimical to the development of the infant mind; on the contrary, it is the very condition of that development. When Nature's processes are followed, the acquisition of knowledge, far from being a hateful task for the child, is a delightful occupation. But it will be said that our system of education is fixed and practically unalterable, and that if it has its disadvantages these must be borne with. It does indeed look as though only a very distant future would see that change in our educational system which every philosophical mind desires.

#### DIVISION OF TIME IN SCHOOLS.

But even though the age of seven years were fixed as the minimum for admission to the schools, it would still be necessary to modify considerably the routine of scholastic exercises. The hours of study are too long, especially in the infant classes. It is extremely unwise to require of little children that they shall observe silence and sit quiet in their places for any length of time.

The very condition of the development of mental or bodily faculties is use, exercise. But in school the child is required to refrain for hours at a time from that play of the muscles, from that exhibition of exuberant life which is so natural to it, which, indeed, is as necessary for it as the inhalation of pure air. I have found primary schools in which the pupils were allowed no recess between their entry into the school in the morning and the dinner hour, or between one o'clock and the hour of breaking up. Of course I lost no time in suggesting the remedy necessary to correct such a state of affairs, but, even with the usual forenoon fifteen minutes' recess, school life cannot fail to have an injurious effect upon the health of the pupils.

#### RECREATION MUST BE SPONTANEOUS.

No military drill-sergeant exercises will afford a competent substitute for the spontaneous activity of childhood; on which healthy physical development depends. Such concerted exercises are of the nature of a task; they are not recreation. They are too stiff, too formal for the ingenuous minds of children. Their own sports and amusements are infinitely better fitted to develop their powers symmetrically than the most cunningly devised system of calisthenics in the world.

What is called *cramming*, is a practice that ought to be frowned down by every honest man. It consists in loading the memory with a heterogeneous and undigested mass of dates, and rules, and formulas, generally with a view to demonstrating at a public examination or exhibition the excellence of the instruction given at a school. There is more wear of brain and more worry attendant on the preparation for such exhibitions than they are worth. As a rule, we might hold concerning mental pabulum as of corporal food, that so much is *useful* and *used* as is needful at the time it is taken; any excess is rejected at once, or remains only to cause discomfort. Perhaps these remarks might be extended a little and applied to the subject of multiplied studies; but I do not care to discuss every incidental matter. And yet I cannot refrain from just hinting at another analogy here, between the admission of knowledge into the mind and of food into the stomach. It is found that a few plain dishes are more promotive of health than a great variety of exquisite viands.

#### INJURY TO THE EYE.

In an address before the State Medical Society, Dr. R. Agnew calls attention to the increasing prevalence of asthenopic, refractive and neurotic difficulties among scholars of both sexes. "These maladies are," he says, "growing rapidly more prevalent in cities, schools, colleges, and other centres of civilization." The same complaint is echoed from Germany. In England inflammatory diseases of the eye appear to be causing some alarm, as the pages of the London *Lancet*, for the past two or three months, will show. The disorders to which Dr. Agnew refers have their cause in a deficiency of light or imprudent use of the organs of vision, while the ophthalmic disorders spoken of in the *Lancet* are due to defective general hygiene.

#### VENTILATION.

It is of supreme importance that perfect ventilation should be secured for all school buildings. The first thought of the architect who plans a school house should be how he may best solve this great problem of ventilation. The external appearance of the building should be only a secondary consideration. There is in reality no conflict between these two things when they are properly understood; between perfect adaptation of a building to its destined uses and artistic beauty. Indeed, the beauty of a building must consist in its adaptation to its ends. If it is ill-adapted, but yet possessed of a certain pleasing symmetry of form, we may say that it is a beautiful *object*; we should scarcely say that it is a beautiful *building*.

The problem of ventilation is one of considerable difficulty, and we are yet to find its perfect solution. In a climate so variable as ours, where the changes of temperature are so sudden, and have so very wide a range, it is no easy thing to conciliate the antagonistic demands for warming and ventilation.

#### CONTAGIOUS DISEASES.

That no pupil should be admitted to a public school who is affected with any malignant or contagious disorder, would be readily admitted by all. But yet there is no doubt but that in certain districts this plain dictate of sanitary prudence is disregarded, and the consequence is that skin diseases and ophthalmic affections spread among the pupils. A weekly inspection of the scholars, and especially of those applying for admis-

sion, to be conducted by a physician, would be a very desirable measure.

With regard to the precautions to be specially taken against the spread of small-pox, it is indispensable that every pupil should be vaccinated, as the *sine qua non* condition of being admitted to the schools. While I was connected with the Board of Education as visiting physician, I had the opportunity of witnessing in a very striking way the efficacy of vaccination as a prophylactic against small-pox. Of 40,000 pupils vaccinated, not one was attacked by the malady, though the epidemic raged through the city for months.

#### Remarks of Dr. C. J. Agnew.

These were principally directed to the subject of

#### NEAR-SIGHTEDNESS.

He remarked: It becomes my duty to say a few words regarding the prevalence of those forms of eye disease which may fairly be set down as preventible. Every practitioner who is called upon in our city to engage in ophthalmic practice will testify that those forms of eye disease which are directly traceable to over or faulty use of the organ are greatly on the increase. Of these maladies near-sightedness may be taken as the type and example. Near-sightedness is increasing, and can be traced without the slightest difficulty to the influence of both public and private schools. Such a statement, capable of easy proof, does not produce the impression upon the public mind that it should, because there is profound ignorance among the public as to the nature of near-sightedness. Most persons think that a near-sighted eye is a good eye to have, that it is a "strong eye," one in which there is an economy of visual force not enjoyed by eyes that see well at long range as well as near at hand; that a near-sighted eye may cause some inconvenience to its possessor during his early life, to be compensated for, however, by his being able to dispense with convex glasses for vision after forty years of age. There is in this belief just enough of truth to place it among the other common popular fallacies.

#### Remarks by Dr. Jacobi.

Dr. JACOBI, in his observations in the foregoing lecture, devoted especial attention to the question as to the proper age at which children should be sent to school. He remarked that although the literature on the

pathology of infancy and childhood is very extensive, the monographs and papers on the physiology, particularly on the brain and nervous system in general, of that period of life are but very few. As far as the relative proportions of the single organs of the body at different ages are concerned, we are even compelled to look for information on those subjects more at the hands of such scientific men who teach, or are taught, in artists' schools, than of anatomists proper.

The functions of the brain depend on its development. Fat and phosphorus appear to be in a certain proportion to its action; in the adult it is mostly found in the white substance of the brain; in the embryo and the newly born in the medulla oblongata. Thus it is, in part, explained how the principal functions of the newly born and infant are concentrated in this part of the nervous system. There is, besides, less of those substances in the young than in the old.

Other differences are exhibited by the per centages of water. The more water, the lesser the function. In the new born least water is found in the medulla oblongata (84.38 p. c.), another proof of the superiority of this part of the nervous centre. Next comes the pons Varolii (86.77) which has the very smallest amount of water in the adult. The white substance of the large hemispheres contains most (89.93) in the infant, while it has less in the adult; and the gray substance of the infant has 87.76 per centage of water, while it contains a large per centage of it in the adult (without, however, obtaining the same absolute per centage of the infant). In this respect, while the embryo (also the infant) is so much inferior to advanced age, it ranks equal to the very oldest age of the human species or the lower vertebrates.

In the embryo and newly born there is no or little difference between gray and white substances. The difference is a condition *sine qua non* of the normal action of the brain in advanced age.

In the infant the whole mass of the brain is soft, uniform, grayish; the ventricles smooth, the convolutions are but few, and large. In the adult the differences of the brain substance are better marked, the ventricles more elaborately formed, the convolutions more numerous and irregular.

In the infant the nerves are larger in proportion (only the sympathetic ganglia large),

the spine more developed in proportion. Therefore more reflex action, with powerful circulation, than intellectual work.

The head of the new born is one-fourth of the length, one-fifth of the weight, of the whole body. Its base is short, therefore the occipital bone horizontal; it is wide between its parietal tubera, therefore spherical, being low and narrow anteriorly.

The cranial cavity of the new born (of 482 cubic centimetres) amounts to one-fourth or one-third of that of the adult, and grows very rapidly (999 entire c. m. in the second year). The growth, however, is not uniform. Originally the occipital portion amounts to five per cent., parietal 81.11, frontal 13.89, of the whole mass. Of these the first grows very fast, the second decreases a little in the second year, and the third grows but little.

The weight of the cerebellum in the infant (25 grammes, 7 drachms) amounts to six-sevenths per cent. of the whole brain; in the adult 12 or 14 per cent. Look at the rapidity of the changes: Six-sevenths per cent. at birth, nine-elevenths in two months, 12 or 13 at 10 or 15 years, 12 or 14 in the adult.

The relations of the several parts of the infant and the adult brain are also instructive:—

#### INFANT.

Anterior lobe, (60-70 grammes)	= 1-5 of the adult,
Lateral, (250 " )	= 1/2 " "
Cerebellum, (25 " )	= 1/2 " "
Hemispheres, (300 " )	= 1/2-1-5 " "

All the parts of the body have their fastest growth within the first three years of life.

Length of body at birth (according to Schadow), 18 inches (German, larger than English); at death, 66. Increase in the first year, 10 inches; second, 4; third, 4; fourth, 3; fifth, 3; sixth, 2; seventh, eighth, ninth, tenth, each 1, etc. A certain retardation therefore with 7 years.

Proportion of upper portion of trunk (chest) to lower in the new born = 1:2, in the adult, 1:1.618. This normal proportion is reached with the eighth year.

Lumbar region grows principally up to the ninth year (then again between 12 and 15); ought to be developed before the children are compelled to remain long in a sitting posture. Retardation of the growth of the lower extremity, as also the trunk, and the whole height about the seventh to the ninth year.

Relation of upper head (cranium) to lower

(face) in the new born = 1:1. In the adult = 1:1.618. This proportion is reached with the eighth year.

Between the fifth and sixth years the base of the brain grows very rapidly, the frontal bone protrudes anteriorly and grows upward. The anterior portion grows considerably, but still the white substance and middle portion of brain are prevalent. These are the organs for the receptive faculties and memory. About this time learning ought to commence in earnest. All the above figures point to the end of the seventh year as the period of beginning mental work. But the gray substance is also developing at that period. It ought to be influenced to a certain degree, like a young tree in the time of its growth, without being strained. Many organs in the brain, many functions. Neglect none, exercise all gently. It is a mistake to exercise one faculty only. Our text-books, in the shape of catechisms, exercise the memory only, and thereby fatigue and exhaust. The compound exercise, consisting in walking, with its changes and co-operative action, is less fatiguing than standing on a single leg. Learning by heart is not learning, and reciting is not thinking; just as little as deglutition is digestion.

The younger the age in which children are sent to school the more they are apt to suffer from school diseases. Improper temperature, bad air, dust, contagion, insufficient respiratory movements, insufficient muscular action, compression of abdominal viscera (thereby nose bleeding, headache), scoliosis. It is apt to commence very early, its causes being local; habit of improper posture, the effort to raise the right shoulder, to hold the head to the left to follow the movements of the pen, the height and distance of the tables, the accumulation of clothing (in girls entering the benches) under the gluteal region, the resting on one (mostly the left) synchondrosis sacroiliara, etc.

Besides, every article which is over-exerted in its physiological function, especially when in the process of normal development, will soon exhibit the symptoms of pathological, in place of physiological congestion. Epilepsy and St. Vitus' Dance are superinduced by over-exertion of the brain, as the latter is also liable to result in exhaustion. Frequently very promising little children become dull and lazy, and older boys trained a few hours daily in an evening school will



often outdo in a short time those who commenced their school drilling at an early age. Moreover the time indicated above is just that in which a spontaneous love for more active work is generally developed.

It is, further, the period when morbid tendencies diminish considerably. Contagious diseases of all sorts and tubercular meningitis are not so frequently observed after the seventh or eighth year. Of all the deaths taking place in New York city, 29.63 per cent. fall within the first year, 10.63 the second, 4.37 the third, 2.40 the fourth, 1.64 the fifth, 3.20 the sixth—thus 51.23 within the sixth year. The period from the sixth to eleventh year yields but 1.50 per cent. Thus the principal mortality has passed by at the time proposed (7-8 years). It is a common experience that orphan asylums containing children from seven or eight to fifteen years have a low mortality, proving that this period of life yields less dangers, while it also exhibits a greater faculty and willingness to undergo mental work on the part of the children. Every organ, the brain like the others, must be sufficiently prepared, when it is expected to be capable of being trained.

The age proposed above cannot be expected to be the exact one in every individual case. No rule will always be valid. The state of health will sometimes be such as to preclude a child's going to school at the age of seven or eight, or at any age. Contagious diseases, insufficient intellect, epilepsy, chorea, retarded growth without any apparent local trouble, acute or chronic organic diseases, deformities, and many other causes, may keep a child out of school, with or without the approval of parents, part of whom are just as apt to send their children to school from vanity or from anxiety to get them out of the way.

## COMMUNICATIONS.

### IS ERGOT AN OXYTOCIC.

BY W. S. BATTLES, M. D.,  
Of Shreve, Ohio.

Read before the Wayne County Medical Society, at its regular monthly meeting, Sept. 16, 1873.

There has of late been much said and written on this article of the *materia medica*, and I am not certain that what I may write will add much, if anything, to what is already known. But for the purpose of elic-

ing an interest in, and inviting discussion upon the subject, I would ask a few questions and note a few observations.

And I would first inquire, is Ergot anything more than a powerful diffusible stimulant, asserting with great rapidity and certainty its force in certain atonic conditions of the system? Does it not belong to a numerous class of medicines now well known to affect primarily and exert their chief action through the sympathetic nerves? Does its action in ordinary hemorrhagic conditions differ from that which it exerts when administered as an oxytocic, and have the paradoxical observations made as to its effects differed in the least from those made in regard to the action of opium, alcohol, quinine, etc.? Does any one hold that when any one of them are administered its action is specific as to the uterus?

Should we find, as I once did, a lymphatic flaccid patient pouring out his life through a small wound scarcely penetrating through the subcutaneous areolar tissue, would we administer any of the well-known hæmostatics with the idea that they would act specifically upon the few small blood-vessels implicated in the cut? Certainly not! but would expect, by the agency invoked, to remove the hydrostatic pressure, for such it is, from these open vessels by restoring them to, or at least arousing for the time being, the working capacity of the muscular walls of the entire capillary circulating system.

Any one who has had any considerable experience in obstetrical practice knows with what difficulty we are able to diagnose many cases coming under our observation. Here is a case in which we have regular pain, with marked contractions of the uterus, the os patulous and even considerably dilated. We give opium; the pain ceases, the os contracts, the patient becomes comfortable. She would have done so under the influence of alcohol, quinine, or ergot. It was neuralgia, consequent upon an atonic condition, and all that was necessary was the introduction of something to arouse the working capacity of the machine, and a physiological condition asserted itself, not only in the uterus, but throughout the whole organization, or rather through the whole organization, the uterus coming in for its own share, only, of this *vis vita*.

Again, we find a patient where all the manifestations of labor are present, but the process goes on slowly or ceases altogether;

we administer an ounce or two of alcohol, and very soon action is aroused, the labor speedily terminates; and it would have done so, precisely, under the influence of ergot, quinine, opium, or any other medicine that has the property of an excitant of the latent energies of the most wonderful part of our nervous system, the nerves of organic life.

Hence, ergot may or may not be an oxytocic; quinine is or is not an oxytocic; and the *is* or *is not* solely dependent upon the condition of the pregnant female at the time of its exhibition. We here refer to quinine especially, as we have noticed that it has been of late catalogued with ergot as an ecbotic, and by some very clever practitioners proscribed entirely in pregnancy.

Practicing, as we always have done, in a malarious district, in a portion of which death from congestive chill has been of frequent occurrence, I have relied upon quinine as a measure of protection to all the pregnant women coming under my care in these neighborhoods, prescribing it in large doses, and have yet the first accident to record from its oxytocic effects.

And in women of relaxed habits, threatened with abortion, especially when hemorrhage is present, I administer with the utmost confidence the ergot of rye, and have not now, nor do I ever expect to report any unfavorable results.

If we have a female in actual labor, and there is no disparity between the size of the fœtus and the mother's pelvis, and the woman in a perfect physiological condition, we have a case in which there is very little medical or obstetrical interest; *the thing will do itself*; in fact, I know of no means to prevent it; for, narcotize her with opium, deaden her with chloroform, intoxicate her with alcohol, or bring her under the anæsthetic action of ether, it is all the same, the little fellow will *have his own way*, and appear in spite of us.

To have children is a very natural, and, comparatively, a very easy thing for a perfect woman to do, and it is not a very hard thing for a woman much below this standard to do, providing we, even for the time being, bring her into a tolerable approximation to a physiological condition by artificial means.

A woman, perfect in physical structure, and of good health, carries her children too, without much solicitude; in fact, the annals of criminal abortion show most conclusively that she has the utmost difficulty in getting rid of her little "squatter sovereign." He

holds on to the possession of what ought to be his quiet abode with a tenacity equal to the aggregate of the vital forces of the mother who carries him; and if a woman below this standard of health can be kept, by a careful dietetic and medical regimen, at or near a physiological condition, the question of the carrying of her child is reduced nearly to a certainty.

Now it appears that the chief difficulty leading to accident in abortive women is asthenia; and hence the work of the physician is primarily to maintain the strength of his patient. This can ordinarily be done by giving careful attention to the condition of the digestive organs; but there are times when pathological condition suddenly and powerfully asserts itself over the physiological, even when the tissues are tolerably well nourished, and manifesting itself chiefly in the depression of nerve force, especially that of the sympathetic system, producing ultimately relaxation of the uterine walls, dilatation of the os, hemorrhage, and death of the child, as its vitality cannot be greater than that of the mother who carries it. This condition, or these conditions rather. Sometimes, too, occur at the time of parturition.

Now, if during gestation this pathology should obtain, and we, by the use of ergot or other means, raise the status of the nerve force to or near the natural standard, this physiological condition would favor, nay, it would assert itself in maintaining and continuing the gestation. While if precisely the same thing was done at the time of parturition the condition produced by this same article of the materia medica would manifest its action, perhaps, in the speedy expulsion of the child; being in the one case the means of the conservation of the life of the child, and in the other the means of the speedy delivery of the mother.

That which under the first given circumstances would enable, yes, compel her to carry her child *safely*, would, under the second given circumstances, enable the uterus to safely throw it off.

Now this we believe ergot and quinine will do, and it only remains to be proven that they will do more, in order to maintain that to the pregnant female *they are always oxytocic*.

It does not come within the design of this paper to treat of the dangers and the appropriate treatment of pregnancy where hy-

perasthenia obtains; for in these cases no sane physician would think of prescribing quinine and alcohol; although he might occasionally find a place for ergot and opium.

## MEDICAL SOCIETIES.

### PROCEEDINGS OF THE WAYNE CO., OHIO, MEDICAL SOCIETY.

WOOSTER, O., July 15th, 1873.

The Wayne County Medical Society held its regular bi-monthly meeting at the office of Drs. Robinson & Weaver, Vice-President Dr. J. E. Barrett in the chair, and the following named members present:—Drs. Barrett, Hart, Hunt, Liggett, Moncrief, Pope, Robison, Weaver, and Wilson.

Minutes of last meeting were read and approved.

It being the day for the annual election of officers a ballot was taken, with results as follows:—President, James D. Robison; 1st Vice-President, George Liggett; 2d Vice-President, D. L. Moncrief; Secretary, J. M. Weaver; Treasurer, Samuel Wilson.

Dr. Todd was continued as Essayist, and J. H. Wallace as alternate.

The following question was propounded and discussed at considerable length:—"Whether that peculiar morbid condition known as *satyriasis* would necessarily be the result of syphilis?"

A case of fracture of the forearm, accompanied by severe neuralgic pain of middle finger of same hand, was narrated, the peculiarity being that the pain always occurred

during sleep, no matter what time in the day or hour sleep occurred.

On motion, Society adjourned.

WOOSTER, Sept. 16th, 1873.

Society convened at the office of Dr. Liggett, President Robison in the chair, and the following named members present:—Drs. Barrett, Battles, Hunt, Moncrief, Pope, Robison, Todd, Wallace, and Weaver.

Minutes of last meeting approved.

Dr. Battles read a paper entitled "Is Ergot an Oxytocic?" which elicited much discussion up to a late hour, and which the Secretary was ordered by the Society to send to the MEDICAL AND SURGICAL REPORTER, together with the proceedings of this meeting, for publication.

The following resolution was carried:—

"Resolved, That as many of the members of this Society as can will attend the next Quarterly meeting of the 'Northeastern Ohio Medical Association,' to be held in Massillon, 4th of November next."

Drs. Todd and Battles each related a case of chronic uterine disease that had been under their care for a considerable length of time.

Dr. Weaver related a case of "painless labor" that came under his observation within a few days since.

Attention of the Society was called to the action of the American Medical Association at its last meeting, relating to the rank of medical officers in the army.

The Secretary was instructed to draw up a petition, for the signature of members, to be presented to the member of Congress from this District.

Society adjourned.

J. M. WEAVER, Secretary.

## EDITORIAL DEPARTMENT.

### PERISCOPE.

#### The Italian Dropsy.

The Paris correspondent of the British *Medical Journal* quotes the following from a lecture by Professor BÉHIER on pellagra or Italian dropsy:—

The disease manifests itself by three groups of symptoms, which consist of intestinal and nervous disorders, and a peculiar affection of the skin. It is endemo-epidemic in certain parts of the south of France, in the Asturias, and in Lombardy, where the disease is ascribed to the use of diseased maize or Indian corn. The disease has been observed in the sporadic form in the north of France, and in countries where the maize is unknown; and in 1869 M. Béhier had already met with a case in Paris, in a man

who had never been out of the capital. It generally manifests itself in spring, and disappears in winter, and the eruption makes its appearance on the parts most exposed to the sun's rays. Several authors have tried to make out that pellagra was a specific disease, a morbid entity due to a special action of the ergoted maize; but M. Béhier strenuously refutes the assertion, and points out there is nothing either in the etiology, semiology, or pathology of the affection, that would warrant such an opinion. As regards its etiology, the learned professor proved that the disease has been observed where the maize is not the staple food, as in the champagne provinces, in Paris, in lunatic asylums, where the grain is never used. On the other hand, in Greece, and Naples, and Transylvania, where the grain is largely consumed, the disease is unknown. Moreover,

where the maize constitutes the principal food of the inhabitants, the poorer class are affected with pellagra, whereas the rich generally enjoy a perfect immunity from the disease. It will, therefore, be seen that pellagra is not due to a poisoning of the system by a sort of ergotism, as supposed by some, for the ergot of rye produces certain effects which cannot be confounded with the lesions found in pellagra. The ergoted maize acts, therefore, not as the ergot of rye does, but the grain, whether sound or deteriorated, is, when used exclusively, insufficient as a nutriment. The true etiology, continued the worthy professor, consists in misery, privations of every kind, bad and insufficient food, excessive work, defective hygiene, etc.

The symptoms generally assume a cachectic character, and, as regards the erythema that occurs in pellagrous subjects, it may be explained thus: The skin, badly nourished and weakened, like the rest of the body, is more liable to external influences; and the sun's rays, which in a healthy individual produces no cutaneous lesion, would, in weakened subjects, cause erythema and phlyctenæ, which proves that the erythema does not bear the same relation to the general condition of the system as does the eruption in certain general specific affections, such as syphilides, the eruption of exanthematous fevers, but that it is an erythema due to traumatism, the cause in this case being the sun's rays. Besides which, the seat of the lesion, always existing in the parts most exposed, would be another argument in favor of local traumatism. The recurrence of diarrhœa, and the disorders of the digestive tube, require no other explanation than what takes place with other people, when large quantities of liquid are imbibed to satisfy urgent thirst, particularly if the subjects are already debilitated by previous disease. As for the nervous phenomena, as manifested by languor, indifference, hypochondriacism, and even dementia, etc., these form the usual *cortège* of symptoms, resulting from misery, privations, and prolonged anxiety. These phenomena are aggravated in spring, when, for reasons which need not be explained, the sun's influence is more deeply felt; and the same may be remarked in all asylums where mental affections are treated.

Unfortunately, morbid anatomy does not throw much light as to the nature of the malady, as every form of lesion may be found, and that more or less in every organ, but none can be looked upon as specific or characteristic, as has been proved at the autopsy of the patient referred to above, who died three days after his admission into hospital. The following *post-mortem* appearances, for which I am indebted to the kindness of Dr. Straus, Professor Béhier's chef de clinique, were observed in the subject in question. The lesions, on opening the abdomen, were numerous, and sufficient to account for the extreme cachectic condition of the patient. The intestines were studded with tuberculous

ulcerations; the mesenteric glands hypertrophied and filled with caseous matter; the lungs adherent, emphysematous in different parts, and infiltrated with tubercular granulations. The brain was the seat of several old apoplectic lesions, and in the right anterior lobe was found a small portion of recent softening with consecutive hemorrhage, which was evidently the immediate cause of death. The back of the hands, and that part of the feet which were constantly exposed (as the man, who was a beggar, wore only slippers without any socks), were the seat of erythematous swelling, and in some places denuded of the epidermis, as if removed by phlyctenæ, and the Malpighian layer was entirely exposed. The other parts of the body which are constantly exposed, such as the face and neck, also bore evident marks of the local action of the sun and air.

The treatment consists in removing the causes, and placing the patient in as favorable a condition as possible, administering at the same time good wine, tonics, and proper substantial food. Pharmaceutical agents are of little use in these cases, but prophylactic measures are invaluable, particularly where the disease is endemic, and where, for want of a just appreciation of its nature, thousands of human beings are carried off annually. These measures, however, M. Béhier declares are not in the province of medical men, they belong more to governments, and to that science which, up till now, has proved of so little use, and to which they have given the name of "political economy." But, continued M. Béhier, if medical men cannot of themselves improve the social condition of their fellow creatures, it is, nevertheless, their duty to fearlessly point out to those in power what is due to the people under their rule; and, if the rulers would only try to meet the wants of the masses, it would reflect more to their credit and bring them more glory than that achieved by arms. M. Béhier then added that, should the medical men fail in their philanthropic efforts, they should, with the authority due to their special knowledge, persevere in their good work; and the accomplishment of their exalted duties ought to make them more and more love their profession, which is unquestionably the noblest of all human callings. Be proud, he concluded, of such a profession, and if you would only cultivate it with dignity and honor, you may hold up your heads with any potentate, as you will have rendered as much, if not greater service to the cause of humanity.

#### The Physiological Action of Light.

Dr. J. BURDON SANDERSON said in a recent address:—

I must refer to the admirable recent investigations of Mr. Dewar and Dr. McKendrick on the physiological action of light; they afford still better illustrations, for the function in question is much more difficult to investigate. In the act of vision the impression of light is received by the retina,



transmitted by the optic nerve, perceived by the brain. In this momentary process changes occur in the retina, of the intimate nature of which little as yet is known, in the sensory centre, of which we know only the effects, and in the optic nerve. It is to these last that Dewar and McKendrick have directed their attention. Just as when a message is transmitted along a telegraph wire a change takes place in the wire, the existence of which we can demonstrate by connecting the wire with the coil of an electromagnet, so, by using methods infinitely finer, we can demonstrate that when a message is transmitted from the retina to the sensory centre, the centre of vision, an electrical change occurs in the nerve. Here, however, the resemblance ceases. Both changes are electrical, but they are of a different nature. A nerve is not a telegraph wire. Dewar and McKendrick's research proceeds from two fundamental facts. The first is that there is a difference between the electrical state of a living nerve and that of the same nerve when it is not living, even though it may be all but living, and that this difference manifests itself in voltaic currents, the intensity of which currents varies with the excitability of the nerve. In other words, the vitality of a nerve, its fitness for its function, that of transmitting impressions, is expressed by the intensity of voltaic currents, which are not transmitted through it, as in the case of the telegraph wire, but developed in every part of it, and can be shown to exist even in the smallest fragment by appropriate means. This fact is expressed by saying that nerve, so long as it is alive, possesses electromotive force. The second fact is that in nerves in general the normal nerve-current, *i. e.*, the voltaic current, which can be shown in any living nerve under observation, is diminished or weakened the moment that the nerve is excited, *i. e.*, whenever an expression is conveyed along it. This is expressed by saying that the normal electromotive force of a nerve is diminished when it is in action. The diminution in question is called the "negative variation" of the current. On these facts, which were first investigated by Matteucci, and, I need not say, apply to muscle in the same sense that they do to nerve, the science of nerve and muscle physiology (the most advanced chapter in the whole subject) has been founded by Du Bois-Reymond, and built up by Chauveau in France, by Pfüger, Eckhardt, Bernstein, and others in Germany. The sum and substance of their discovery is that, according to Doth, the same electrical change which occurs in an ordinary nerve, when it is excited by the passage through of induction currents, a similar negative variation of the normal current, a similar diminution of its electromotive force, is determined in a nerve of a special sense, the optic nerve, by stimulus of light, that is to say, that the optic nerve in transmitting the impression of light from the retina (where it originates) to the centre of vision (where it is perceived) undergoes the same physical change that a

motor nerve does when it determines the contraction of a muscle. But this is not all, for Dewar and McKendrick have not merely determined that the optic nerve behaves to stimulus in the same manner as a motor nerve does. They have accomplished what to those who are not conversant with the application of the exact methods to vital phenomena will, I think, appear somewhat surprising; they have measured the quantity of effect produced, and compared that quantity with that of the stimulus used. Light, I need not say, is a thing which can be measured with great accuracy. By means of suitable galvanometers, such relatively inconsiderable currents as exist normally in nerve can also be measured with equal accuracy. Dewar and McKendrick have carried out such measurements; and they have found that when the numbers expressing the results are set down in two columns, so that the effect produced in each observation is placed opposite the number expressing the quantity of stimulus which produced it, the two sets of numbers are not proportional to each other each to each, but stand to each other in relations which are governed by a mathematical law, the so-called psychophysical law. It is not difficult to see how important such a confirmation of Fechner's law is, considering that the law itself was deduced from data of an entirely different kind.

#### New Method with Laryngeal Growths.

We learn, from the *Press and Circular*, that a new method with these growths has been suggested by Dr. JELENFFY.

This consists in a modification of the operation usually conducted *per vias naturales*, the difficulty of which has hitherto been mainly dependent on the supposed necessity for keeping the passage to the larynx widely open, so that the growth could always be kept in view. Certain instruments, such as Störk's guillotine, Türk's fenestrated knife, and a somewhat similar instrument of Bruns, may be safely introduced into the closed larynx; and, without any danger of inflicting any injury, the growth may be removed. These instruments can only act on a circumscribed projection; and as there are no other circumscribed projections in the larynx but polypi, they can do no injury in any case.

Dr. Jelenffy has a great objection to forceps, as they generally only remove a part of the growth, and leave its base. It is also much more difficult with forceps to keep in the middle line of the larynx (as is always desirable). Confined to certain exceptional cases, the forceps of Fauvel and Mackenzie are nevertheless very good instruments.

In seeking for the growth, a certain area at a certain height has to be searched; and, as in the closed larynx its walls are pressed towards the middle line, we have only to seek the growth through the length of the glottis. Störk's guillotine corresponds to half the length of a vocal cord; so that, if it

be introduced to the anterior commissure of the vocal cords, it sweeps the anterior half of the larynx, and if introduced to the posterior commissure, it sweeps the posterior half of the larynx. As regards the depth to which the instrument should be introduced, this is arrived at as follows. When resistance is felt it shows that the instrument is opposite the vocal cords or ventricular bands, but it cannot be ascertained exactly to which of these parts it is opposite. If the instrument is pushed on a little, it passes into the trachea, and resistance ceases. The vocal cords (on which the growth is usually situated) are therefore evidently situated midway between the first point of resistance and the spot at which resistance ceases, and a sensitive hand perceives this situation. In support of his new method, Dr. Jelenffy adduces four cases on which he has operated. In three of the cases the growth was removed at a single sitting; and in the fourth a portion of the polypus was taken away at the first and only visit of the patient. Although in three cases the growths were entirely removed, in only one instance was the voice completely restored. In two of the cases there was hoarseness from catarrh. In the one in which the growth was not entirely removed the result was not known, as the patient never again presented himself.

#### Treatment of Aphonia.

The following cases are reported in the *Medical Press and Circular*, by Dr. GEORGE N. MONETTE:—

CASE I. *Aphonia supervening on an attack of dysentery, complicated with right hemiplegia and amnesia.*—J. R., Irish, set 35, was admitted into Charity Hospital, August 12th, with acute dysentery of ten days' duration. I at once ordered the following prescription:—

R.—Bismuthi subnitratæ,  $\overline{ss}$ ;  
Morphiæ sulphatis, gr. ij;  
Aque laurocerasi,  $\overline{3j}$ ;  
Mucilaginis acaciæ,  $\overline{3vj}$ .

A tablespoonful to be taken after each liquid stool.

August 13th, greatly benefited, he said, from first dose. Prescription repeated, which entirely relieved him within three days. All medicines were discontinued for several days, and I directed, too, that he should have only very light fluid ingesta, with dry soda crackers well chewed before final deglutition. After the sixth day subsequently to his admission, after a violent tenesmic effort at stool, he felt as if he should faint; suffered from vertigo, weakness, and a momentary inability to stir. There was no acute pain attendant, but he could not utter a word, and his right side was paralyzed.

On the second day after the paresis I ordered the following prescription:—

R.—Liquoris strychniæ,  $\overline{3ij}$ ;  
Potassii iodidi,  $\overline{3ij}$ ;  
Spts. lavandulæ comp.,  $\overline{3j}$ ;  
Syrupi zingiberis, aquæ, aa  $\overline{3ij}$ .  
Misce et sigma.

Tablespoonful to be taken three times daily, half an hour after meals. I urged him to frequently attempt to articulate. Within three days the patient could articulate "yes" distinctly, but was unable to utter two words in succession. Phonation was gradually restored, and by dint of persevering in this treatment there was entire recovery of each of the impaired faculties; amnesia cured, phonation restored, paresis almost wholly relieved.

CASE II. *Aphonia following severe cerebro-spinal concussion, complicated with loss of gustation, impaired audition and vision; amnesia and dysæsthesia of lower extremities.*—W. J. S. was admitted into hospital October 6th, 1872. He had fallen, three days previously, from a scaffold, a distance of fifteen feet. He remained in a semi-comatose condition for twenty-four hours or more, with loss of phonation, gustation, impaired audition and vision, and volition of lower extremities, and somewhat perverted sensation.

When first seen by me he could scarcely speak in an audible whisper, and his hearing was very dull; his temperature fluctuating, subsequently profuse perspirations, which somewhat alarmed him. There was some dribbling of urine, but no distention of bladder. Enjoined the most perfect quiet, and ordered the same compound as in Case I, conjoined with the best diet the hospital could afford; soft-boiled eggs, milk-punch, or egg-nog, with topical application of a cantharides blister to back of the neck, just beneath the occipital protuberance, which gave great relief, and was repeated on the next alternate day. One week's treatment justified the assumption of a favorable prognosis, as day after day returning functions were well evidenced, till finally cured.

After he had sufficiently regained each of his faculties, I ordered ten-grain doses of the potassium-tartrate of iron, three times daily, in solution, and discontinued the original prescription.

#### The Pathology of Scarlet Fever.

The *London Medical Record* translates the following views of Dr. A. MONTI:—

He says that the intensity of the scarlatinal sore throat is not proportional to that of rash, but differs according to the epidemic constitution.

1. *Simple Scarlatinal Sore Throat (angina scarlatinosa simplex).*—This is the most essential and characteristic, and also the earliest symptom of scarlet fever. It begins with more or less uniform redness of the middle of the soft palate, the uvula alone, or the uvula, anterior pillars of the fauces, and tonsils; never the hinder wall of the pharynx alone. The part first affected in small-pox is the hinder wall of the pharynx; in measles the posterior pillars of the fauces and neighboring parts of the pharynx are always redder than the anterior pillars and soft palate. For the first twelve hours there is very little swelling of the affected parts;

children seldom complain of pain in the neck, or in swallowing. This form of angina often renders it possible to suspect scarlet fever before the rash comes out. After twelve or twenty-four hours, the redness (which is at first circumscribed by a very well-marked outline) becomes more intense and extensive; the parts swell also; pain in swallowing and in the neck are felt, redness becomes less uniform, and more punctiform. This punctiform angina commonly shows itself six or twelve hours before the rash on the skin. It is still more sharply contrasted with the natural mucous membrane around. Angina faucium following the course described is quite pathognomonic of scarlet fever. After twelve or twenty-four hours more the redness begins to lessen, and has quite disappeared by or before the disappearance of the cutaneous rash, except in cases which may be called anomalous.

In these anomalous cases the redness of the fauces is livid; and during the height or the fading of the skin rash, great swelling of the uvula and anterior arches of the palate occurs; swallowing becomes proportionally difficult. In cases which do well this swelling begins to diminish in one, two or three days.

In other cases there is a further development of the angular lesion. Vesicles, military in size, beset the uvula, the anterior pillars of the fauces, and the tonsils. The contents of the vesicles soon become turbid, and then there is an appearance as of small false membranes; but in reality the condition differs greatly from the diphtheritic lesion shortly to be described. Small ulcers follow the rupture of these vesicles.

The follicles of the tonsils become filled with an excess of puriform secretion, which is subsequently discharged so as to form a kind of false membrane on the surface of the tonsils. This exudation disappears along with the other angular lesions.

2. *Malignant Scarlatinal Sore Throat.*—This form of angina consists in parenchymatous inflammation of the tonsils and neighboring connective tissue. The cases in which it occurs are for the most part those in which the nervous symptoms are well-marked. The angina assumes this form from the very first, *i. e.*, in the prodromal stage. Resolution may be the result, but usually small abscesses form in the tonsils. These abscesses either heal or are followed by sloughing.

3. *Diphtheritic Scarlatinal Angina.*—In some epidemics this is a very frequent complication. The author agrees with Trouseau, that the larynx usually escapes. Paralysis of the soft palate sometimes follows; but paralysis of the limbs never. The author minutely describes three forms of scarlatinal diphtheria; the circumscribed, the diffused, and the septic. In the epidemic which he studied, diphtheritic sore throat occurred in nearly one-third of all the cases (31 out of 105); in three cases at the beginning of the disease; and in twenty-eight at the height of the disease or afterwards.

## REVIEWS AND BOOK NOTICES.

### NOTES ON CURRENT MEDICAL LITERATURE.

—The Brooklyn Pathological Society has published, in pamphlet form, a very appreciative obituary of Dr. R. C. STILES, whose death in the midst of his labors was noted in this journal last Spring. We omitted to state in our notice of his discoveries that he was the first to detect the parasite which causes the "Texas cattle disease," an observation which secured him a wide-spread reputation.

—The Vermont *Medical Journal* and the *Archives of Science* are two publications conducted by Dr. JOHN M. CURRIER, Burlington, Vt. The former is bi-monthly, 48 pages, \$3.00 a year. The latter "is devoted to Geology, Mineralogy, Botany, Zoology, Chemistry, Archaeology, Paleontology, Entomology, Microscopy, Astronomy, Mathematics, Physical Geography, Conchology, Comparative Anatomy and Physiology, Meteorology, Ornithology, Ethnology, Physics, Animal and Vegetable Chemistry, and Biology."

### BOOK NOTICES.

Transactions of the Medical Society of the State of California, during the years 1872 and 1873. Sacramento, 1873. pp. 252.

Quite a number of excellent articles are comprised in this volume. The report on Surgery, by Dr. G. G. TYRRELL, of Sacramento, gives several cases reported by various observers which will be read with interest. Of the remaining papers we may mention the Report on Medical Education, by Dr. J. P. WHITNEY; Mortality Statistics of California, by Dr. THOMAS M. LOGAN; How we Become Deaf, by Dr. ED. M. CURTIS; On the Reciprocal Relations between Physicians and the Public, by Dr. F. W. HATCH; on Tracheotomy in Croup, by Dr. LEVI C. LANE; Nervous Exhaustion Considered as a cause of Phthisis Tuberculosis, by Dr. H. A. DU BOIS; Insanity in California, by Dr. E. T. WILKINS; on Femoral Aneurism, by Dr. A. B. STOUT; on Resection of the Elbow Joint, by Dr. H. H. TOLAND; on Skin Grafting, by the same; on Cerebro-spinal Meningitis, by Dr. W.

FITCH CHENEY; on State Botanical Farms and Thermal Sanitarium, by the Committee; A Description of New Instruments for Tracheotomy and Staphyloraphy, by Dr. M. B. POND, etc. Handsome lithographic diagrams and illustrations are inserted.

The observations on the peculiar variety of phthisis described by Dr. Du Bois, are striking. He considers excessive devotion to business, combined with excessive venery, as the predisposing causes of a large number of troublesome chronic phthisical maladies.

Transactions of the Kentucky State Medical Society, eighteenth annual meeting, held at Paducah, Ky., April, 1873. pp. 163.

This number contains the address of the President, Dr. LEWIS ROGERS; papers on Medical Education, by Dr. EDWARD RICHARDSON; History of Disease, by Dr. J. J. SPEED; Obstetric Procedures among certain of the Aborigines of North America, by E. McCLELLAN, Assistant Surgeon, U. S. A.; Report on Surgery, by Dr. J. W. THOMPSON; Report on Vital Statistics, by Dr. D. T. SMITH; on Registration, by Dr. S. A. FOSS; on Recent Improvements in Ophthalmic Surgery, by Dr. DUDLEY S. REYNOLDS; on Laryngoscopy, by Dr. RICHARD O. BRANDEIS; The Therapeutics of Electricity, by Dr. B. TAUBER, and various memoirs. The article by Dr. McClellan contains a mass of original observations, many very curious, the result of which is to show that the squaws have no peculiar exemption from the dangers of childbirth, though their hardy lives enable them to disregard its pains more than their white sisters.

Report of Columbia Hospital for Women, and Lying-In Asylum, Washington, D. C. By J. HARVEY THOMPSON, A. M., M. D., Surgeon-in-Chief. With an appendix. Washington, 1873. 4to, pp. 430. Illustrated.

This handsome volume contains the records of a large number of cases in gynecological practice, and also of operations on the eye and ear. The former commence with a report of thirty-four successive operations for the radical cure of lacerated or ruptured perineum, all of them resulting favorably. The operating method adopted was a slight modification of that recommended by that martyr to gynecological surgery, Mr. I. Baker Brown. Various cases in vesico-vaginal and rectal fistula are added. Diseases and

displacements of the uterus come next, in which the phenomena and treatment of these lesions are considered at length. In cervical endometritis in these connections the use of pure carbolic acid applied directly to the mucous membrane is recommended beyond other treatment as painless and efficacious. Carcinoma uteri is discussed at considerable length, the result reached being that cancer is of local origin, without any specific cell, excited by a slow interstitial inflammation, its only cure excision or thorough cauterization, and its general treatment palliation. The quotations, cases, and remarks on masturbation in women (p. 202-220) especially urethral masturbation, are curious and instructive. Morgagni's advice, "When any girl complains of a difficulty in making water, inquire very narrowly and force out the truth while it is yet possible to administer relief," is a shrewd suggestion. The appendix contains reports from the dispensary connected with the Hospital, by Drs. F. A. ASHFORD, S. C. BUSEY, and D. WEBSTER PRENTISS.

A Manual of Medical Jurisprudence. By Alfred SWAIM TAYLOR, M. D., F. R. S., etc. Seventh American edition, revised from the author's latest notes and references. By JOHN J. REESE, M. D., Professor of Medical Jurisprudence and Toxicology in the University of Pennsylvania, etc. With illustrations on wood. Philada.: Henry C. Lea, 1873. Sheep, 8vo, pp. 879. Price \$3.00.

The excellent work of Taylor has long been a recognized authority in forensic medicine, both in this country and in England. The rapid advance, especially in toxicology, which has been made in late years, and the leading cases which have arisen in the courts, require constant attention, to bring such a work down to the latest positions of the two branches of study of which it treats. This in the present instance has been ably done by the author and by his capable American editor. The additions of the latter alone amount to about one hundred pages, and render the book particularly instructive to the American reader, as they chiefly have reference to late cases and statistics in this country. The famous trials of Mrs. Wharton and Dr. Schœppe are adverted to, and important rules drawn from them. Several



subjects not included in previous editions are embraced. The momentous and increasingly weighty questions relating to insanity are entered into with fullness and care. The concluding chapter on life insurance is one which deserves close reading. The effects of opium eating on health and life, therein discussed, is an inquiry which extends beyond the limits of insurance interests, as few are aware of the vast amounts of that drug consumed in this country by persons in health.

Lectures on Clinical Medicine, by A. Trousseau, late Professor of Clinical Medicine in the Faculty of Medicine, Paris, etc. Translated from the Third Revised and Enlarged Edition, by JOHN ROSE CORMACK, M. D., and P. VICTOR BAZIRE, M. D. Two vols., 8vo. Philadelphia, Lindsay & Blakiston, 1873. Cloth, Price \$10; Sheep, \$12.

Armand Trousseau was born at Tours, in 1801, and devoted himself with such ardor and brilliant success to the study of medicine that he was appointed Professor *agregé* to the Faculty of Medicine, of Paris, when but twenty-five years of age. Two years later the Government selected him to make a special study of certain epidemic diseases which were raging in central France, and subsequently to examine the yellow fever at Gibraltar. The striking and accurate reports which resulted from these studies, and the rapid series of profound articles in all branches of medicine which he contributed to the leading scientific journals, obtained for him, in 1839, the chair of therapeutics and materia medica, in the Ecole de Médecine. Here for nearly thirty years he taught with almost unexampled success, inspiring his numerous pupils with an enthusiasm for science, an appreciation of exact research, and high and noble views of the profession of their adoption. Eloquent beyond any other speaker of his nation, of wide and exact erudition, sincere and unostentatious, he was the central figure for years in the corps of medical instructors.

Such is the teacher whose lectures have been brought before the American public in the above work. We have thought this sketch of his life, inadequate as it is, would fitly preface what we have to say about them. They bear throughout the marks of the mas-

ter's hand. The introductory chapter, on the practical study of clinical medicine and the general duties of the student, deserves to be committed to memory by every professional man, student, practitioner or teacher. How few there are of these latter who could truthfully say to their auditors: "I am grateful when you bring under my notice observations which enable me to correct a mistake."

The discussion of the various diseases is carried on in the form of clinical lectures, as the title of the volumes denotes, and rarely does one find cases so clearly described, with the symptoms arranged with such fidelity to nature and yet with such positive effect. No confusion, no repetition. We could not select in the whole range of literature better models for the physician who wishes to report cases for a medical journal. Opening the volumes almost at random, we find a case of stomachic vertigo (vol. ii, p. 335). The slightest fact that bears on the case is not omitted nor misplaced; yet not a useless trait is added to weaken the effect of the portraiture. Indeed, Trousseau's lectures are masterpieces of French prose, and fortunately this translation does them as near justice as our tongue allows.

His therapeutics are of the soundest description. Not a *novateur*, still less a routine, far from an empty nihilism, he puts his finger on the best one or two remedies, and seeks by their varied and judicious application to meet the diverse phases of the same disease. His treatment of scarlet fever, of diphtheria, of pneumonia, is admirable, and to our thinking cannot be improved with our present resources.

His profound acquaintance with medical history protects him from the superficial admiration of our own generation so common in medical writings. He finds in Aretæus his remedies for diphtheria, and recognizes in Avenbrugger the credit of discovering percussion. Yet his familiarity with the most recondite researches of chemistry and physics is evident everywhere, and he has a happy faculty of seeing at a glance how they can be applied to clinical use.

The general perusal of these lectures by American practitioners will give them juster views of their profession as an art and as a science, and guide them in the judicious use of the therapeutic materials at their command.

## MEDICAL AND SURGICAL REPORTER.

PHILADELPHIA, OCT. 4, 1873.

S. W. BUTLER, M. D., D. G. BRINTON, M. D., Editors.

Medical Societies and Clinical Reports, Notes and Observations, Foreign and Domestic Correspondence, News, etc., etc., of general medical interest, are respectfully solicited.

Articles of special importance, such especially as require original experimental research, analysis, or observation, will be liberally paid for.

To insure publication, articles must be practical, brief as possible to do justice to the subject, and carefully prepared, so as to require little revision.

Subscribers are requested to forward to us copies of newspapers containing reports of Medical Society meetings, or other items of special medical interest.

We particularly value the practical experience of country practitioners, many of whom possess a fund of information that rightfully belongs to the profession.

The Proprietor and Editors disclaim all responsibility for statements made over the names of correspondents.

## MODERN STUDY OF MENTAL PHENOMENA.

The attention which has lately been given to the study of the mind through the avenues of the senses, through physiological research, and through pathological investigations, is already having a very visible effect on the teachings of speculative philosophy. There are still some who do not appreciate such studies at anything like their just value; and we are sorry to have to enumerate among these President NOAH PORTER, of Yale College, whose large work on *The Mind* has been taken as a book of instruction in several leading colleges. In this volume he dismisses the school of what he rather contemptuously denominates "the cerebralists" with a few paragraphs in his finest print. In future days this will be quoted, we predict, as a singular example of ignorance as to the time of day.

He, and too many others with him, commencing the study of mind with a strong bias to certain ancient theories, and with a still stronger determination to make psychology, *volens volens*, prove certain views of a didactic and teleological character, have been and are disabled from attaching the just weight to the positive results of modern

science. Singular, indeed, is it, to the cool observer of the battle of the philosophies now going on, to see that that party which pretends to be fighting for the higher class of principles is always beaten back by the superior and single devotion to truth, which is the only watchword of the opposing camp.

The rapid advance in the determination of the functions of the brain are illustrated by an important essay presented to the *Academie de Medecine*, of Paris, by M. A. FOURNIER. This author gives abundant evidence to show that the mental processes are effected in the following manner: First, an impression is conveyed by the posterior part of the spinal cord to the thalami optici. Fibres start from this centre like rays, some passing to the corpora striata, others to the cortical substance of the cerebrum. The former bodies, the corpora striata, also have fibres connected with the efferent nerves making up the anterior part of the medulla spinalis. The phenomenon of perception is caused by a movement in the cells of the optic thalami; the phenomenon of memory by a movement in the cells of the cortical portion of the cerebrum. These cells, intimately connected together, respond in certain numbers to any special excitement, and thus give rise to the phenomena of complex recollection and association of ideas.

Further than this, it has been shown by Professor FERRIER, in an essay published in the "West Riding Lunatic Asylum Medical Reports," that the view so long generally credited, but not proven, that certain portions of the brain perform certain definite mental acts, is, in all likelihood, correct. The individual convolutions of the brain are shown in this volume to be separate and distinct motor centres, responding definitely to stimuli, and thus demonstrating the idea crudely entertained by Dr. GALL. But the phrenology of the future will be something hardly anywise akin to the craniology and bump-feeling of the past, and will deserve,

when finally fixed in its proper form, a far higher position than that pseudo-science ever could attain.

The observations of FECHNER, showing that the law of Weber concerning the reaction of nerves to stimuli applies to the special senses in all their manifestations, and that the exhibitions of mental force are inferentially strictly similar in their subjection to definite rules of action, are also most important. We see that it will not be long before mental phenomena will be brought to the same touchstone of mathematical measurement that all physical phenomena are already tested by. Indeed this is not in need of any supposition to show it, since the discovery (which has never yet been properly appreciated and applied in its fullness) of Professor Boole, that all right reasoning can be expressed in the mathematical formula of an equation of the second degree, subject to the formal laws of algebraic symbols of fixed interpretations.

We revert casually to these instructive studies, not with any idea of giving them their just prominence, for this would lead us far beyond our space, but in order to show our readers that vast work is doing in this field, and to warn the student who still spends his hours over the pages of Sir William Hamilton or Hegel, under the impression that he is learning the last word of the science of mind, that he had better disabuse himself of that notion as soon as possible, and take down the works of the writers we have mentioned. He will find other guess talk in their pages than that about the Idea, the Ego and the non-Ego, the sufficiency of the Dialectic, the Being, the Nothing, and the Becoming.

## NOTES AND COMMENTS.

The Question of Medical Privileges.

The Washington Star, of September 12th, contains the following item:—

"REFUSED TO TESTIFY.—Yesterday, in the divorce suit of Merkle agt. Merkle, heard in chambers before Mr. J. Cruikshank, Dr.

Darby, who was summoned, refused to testify as to the name and nature of the complaint he attended one of the parties for, stating it would be a violation of trust and professional confidence. The circumstance will be reported to the court, and opinion is divided as to whether the doctor will be compelled to divulge or not. The medical profession generally indorse the position taken by him."

As a matter of general interest to the profession we may state that in English and Scotch practice no such medical privilege of withholding professional secrets is allowed, the theory being that Society itself has placed the courts paramount to all private considerations. But by the statutes of New York and Missouri a regularly authorized medical practitioner may withhold professional communications. The English precedents would prevail where express enactments to the contrary cannot be quoted. See Taylor's *Medical Jurisprudence*, pp. 42-44.

### Nineteenth Century Superstition.

The following broadside has been largely circulated in a city in Western New York, and doubtless elsewhere. It is a sad comment on the superstition and ignorance of the day:—

"THE WONDERFUL HEALER! MRS. C. M. M.

"Within the last year this celebrated Medium has been developed for Healing. Not a single case has come under the care of her Medical Band but has been cured. She is the instrument or organism used by the Invisibles for the benefit of Humanity. Of herself she claims no knowledge of the healing art. The placing of her name before the Public is by the request of her Controlling Band. They are now prepared, through her organism, to treat *All Diseases, and Guarantee a Cure*, in every instance where the vital organs necessary to continue life are not already destroyed.

"Mrs. M. is an unconscious *Trance Medium, Clairvoyant, and Clairaudient*.

"Her Medical Band, use vegetable remedies (which they magnetize), combined with a scientific application of the Magnetic healing power. From the very beginning Her's is marked as the most remarkable career of success that has but seldom, if ever, fallen to the history of any person. No disease seems too insidious to remove, nor Patients too far gone to be restored.

"\$1.00 for Examinations by Lock of Hair. Give age and sex.

"Healing Rooms,' No. ——— Street.

"Seances for materialization Sunday and Wednesday evenings."

#### Stauffer's Uterine Instruments.

These neat instruments, which will be found described in our advertising columns, are made of hard rubber, and in the compact form in which he puts them up are the most durable and convenient of their kind to be had. We have used both the pessaries, the specula, and examining case for a year with great satisfaction, and of the many who have bought them, few or none, so far as we can learn, have been disappointed in them.

### CORRESPONDENCE.

#### Diabetes Insipidus.

EDS. MED. AND SURG. REPORTER:—

In the REPORTER, of March 15, 1873, I find the following query:—"A physician, 53 years old, who for twenty years has suffered from it, desires suggestions for its relief. He writes:—My urine is clear and pellucid. Some nights I void one and a half gallons by measure. Do not get quietly asleep before I am compelled to jump up and urinate. In its treatment I have exhausted the therapeutics of the disease as laid down by writers and authors, without relief."

I find a very satisfactory and conclusive answer to the above in an article published in the REPORTER, July 6th, 1872.

#### "TREATMENT OF DIABETES INSIPIDUS."

"M. Gueneau de Mussey, in a clinical lecture at the Hotel Dieu, recommends the administration of full doses belladonna, and sulphurous baths, in its treatment. He has twice found belladonna to accidentally produce anuria. Its use in incontinence of urine is well established. Systematically employed in diabetes insipidus, it has diminished the quantity of urine passed from ten pints to two pints per diem. The sulphurous baths bring the skin to the relief of the kidneys."

The above query I made myself. Having been troubled for a long time by this disease, at different periods, and it having yielded quite readily, heretofore, to a continued alkaline treatment of carb. soda, I was very uneasy and much alarmed at finding it this time resisting, not only that, but every other remedy authoritatively recommended, and it was gradually reducing my strength and impairing my general health. After writing the above query, and reflecting upon the matter, I had a very dim recollection of an article previously published in your journal on the subject. Upon investigation I found the article above published on the

treatment of Diabetes Insipidus, and determined at once to give it a thorough trial. Having no convenience for sulphurous baths, I adopted the following formula:—

R Ext. Belladonna, grs. xvijj

Ft. pill., No. xxxvi.

S. Take one three times a day.

I took them, with the following physiological effects:—

After three days I felt some dryness of the fauces, but no dilatation of pupils; after continuing them eight days, copious evacuations of the bowels, but no abatement of the diuresis. On the twelfth day, after taking a brisk walk, feeling badly, and some impairment of vision, I immediately returned to my room, and looked in the glass; pupils were much dilated, and feeling very sick, I took at once about one half grain of morphine. Awoke in the night, found my friends round my bed in considerable alarm, thinking I had been drinking to excess. I told them I was feeling unwell; I had taken some morphine, and I feared an overdose. During that night and till night next day I had a complete ischuria. Commenced diuretics, nit. pot., squills, spts., ether, nit., and digitalis, but for six days the secretion did not exceed six ounces in the twenty-four hours, very high colored and apparently very thick. I had no fever, no pain, no appetite, but a general uneasiness. I could not lie in bed or sit up more than fifteen minutes at a time, and felt, as patients have described their feelings to me, as though I was going crazy. This condition of poison from urea, or belladonna, lasted two weeks. At last, fearing constantly coma and death, I sent for a bottle of Wolf's Schiedam Schnaaps, and commenced on it with about two ounces; in half an hour repeated the dose; in an hour more urinated freely. It gave me so much relief and I was so much elated, although I had not been out for two weeks, I mounted my horse and rode to a neighboring town, fourteen miles distance, and in the trip finished my bottle of Schnaaps. The next day I was sick from the overdose of gin, but urinated freely, and in a few days it assumed its natural color, and has since been voided to the amount of from ten to fourteen ounces pretty regularly every day. I am disturbed only two or three times during a night, and that, I think, more from habit than excess of urine. I conclude in this case belladonna has effected a very satisfactory cure.

I owe Dr. De Mussey, lecturer at the Hotel Dieu, and the Editors of the MEDICAL AND SURGICAL REPORTER, an equal debt of gratitude. One for suggesting the treatment and the others for re-publishing the same. Yours very respectfully,

MADISON MARSH, M. D.  
Port Hudson, Louisiana.

—In the will of the late John Stuart Mill there is a bequest of £3000 to any one University in Great Britain or Ireland which shall be the first to open its degrees to women.



# NEWS AND MISCELLANY.

## Medical Society of Mercer County, N. J.

At a meeting of the District Medical Society for the county of Mercer, N. J., held at Trenton, September 1st, Dr. Leavitt delivered an essay on "Herpes," and Dr. Bodine on the "Aneurism of the Heart."

The subject for discussion, "Malaria," was laid over.

Dr. Bodine brought up the recent arrest by the police of persons who were unconscious, under the supposition that they were drunk. He condemned the practice of putting such people in a dark cell; even drunkards should have better treatment than they get.

The discussion was continued between Drs. Warman, Bodine, and Ribble.

Drs. Lalor, Bodine and Coleman were appointed a committee to lay before council a set of resolutions on the subject of treating prisoners.

Drs. Ribble and Warman were appointed essayists for the next meeting.

## Cholera Notes.

### IN EUROPE.

The ravages of cholera in the latter part of August were very severe in the various parts of Europe. In Vienna there was a diminution, the average daily cases being about 50. In Berlin there were about 7 cases daily. In Magdeburg the month ending Aug. 18th numbered 865 cases and 377 deaths. In Königsberg, Braunsberg, Munich and Würzburg, there were daily cases.

In Transylvania the epidemic has assumed frightful proportions, the most elevated and remote mountain villages being violently attacked. In Petroseny, situated in the valley of the Sil, at an elevation of 2186 feet, traversed by the mountain streams, and exposed to the northeast winds, there have for some weeks been about fifteen deaths a day, in a population of 7000. In the village of Flek, in the neighborhood of Kolosvar, in Transylvania, consisting of scattered houses surrounded by gardens and fields, at an altitude of 1468 feet, with a population of about 400, the death-rate for the last two months has been two, three, or four persons daily.

In many towns the introduction of fruit, even ripe, has been prohibited; the country people, consequently, in the prospect of not being able to sell their fruit, eat it in the unripe state, or allow the gipsy children to do so. It is remarked that the gipsies are not attacked by the disease, in spite of their mode of life; but, living in the open air, they are placed in quite different conditions from the other inhabitants of Transylvania.

In France there is much more of the disease than is generally known. In Liege, Paris, Havre, and other cities numbers of cases are reported. At Havre it has as yet chiefly prevailed among the troops in the barracks, but it is not limited to them, nor,

indeed, to the town, several neighboring towns having become affected.

There has been only one case of true Asiatic cholera authenticated in England, a death from which occurred the last week in August on board a ship off the east coast.

Of the physicians who have fallen victims to the disease, few will be regretted more than Dr. OTTO OBERMEIER, of Berlin. He fell a victim to science, having, in his investigations on the disease, kept in his bedroom pathological specimens taken from persons who had died of cholera, and also portions of their excreta; and it is believed that in this way he became infected. According to one account, he injected some blood from cholera patients into his own vessels. He was so devoted to his inquiry that, after he had become aware of the condition in which he was, he made some microscopic examinations on his own blood. His death occurred after an illness of seven hours, in the thirty-first year of his age.

### IN AMERICA.

Davenport, Iowa, suffered severely the last week of August. On Monday, Sept. 1, it was stated 30 cases had occurred, 5 fatal. Other points, above and below on the Mississippi, are reported as affected, but accurate information is difficult to obtain.

### The Yellow Fever.

The destructiveness of this disease at Shreveport, La., has been yet greater. A report of Sept. 16, says:—

"The interments average 30 to 40 daily in a population of 4000, and physicians and nurses are worn out. Five of the six operators in the telegraph office have taken the fever, and two of them are dead. In response to calls for aid, contributions for the stricken city have been taken up in St. Louis and Cincinnati, and measures looking to relief have been begun in New York. There is a general yellow fever panic in Texas. Indianola and Houston are quarantined against Galveston, and Galveston is about to establish a quarantine against New Orleans.

"In Memphis, yesterday, 12 interments were reported, including 9 from yellow fever. A number of new cases of the fever were reported in various parts of the city, and people were leaving in every train to escape the scourge."

The Epidemic continues, at last accounts, with great malignity in the town. The deaths have amounted on some days to about 13 per cent. daily, of the whole population! Memphis, New Orleans and Mobile also report cases.

There has been a fearful epidemic of this same disease in the River Platte these last two months, which, however, is now abating.

### American Pharmaceutical Association.

This body met at Richmond, Va., Sept. 13, and had an interesting meeting. It will hold its next annual session at Louisville next September.

## The Epidemics.

Many cases of sickness are reported in Davenport, caused by the free use of cholera preventives when they were not necessary.

A young girl who was driven through the cholera-infected district of Davenport, and jokingly told that she would be sure to catch the disease, was attacked with cramps, collapse, and discoloration, and died in a short time, a victim of the power of mind over matter.

"A strange and fatal disease, resembling fever," is reported at Kelton, in Utah. Persons die in a few hours after being attacked.

## Personal.

—Dr. P. H. Bailhache, of Quincy, Ill., has been appointed Superintendent Surgeon in the Hospital Marine Service of the United States, and assigned to duty at Louisville, Ky.

—Dr. H. A. Spencer, of Erie, has been appointed surgeon on the Lake Shore and Michigan Southern Railroad.

—Dr. John B. Blake has been appointed by the President a member of the Board of Public Works in Washington. The President said to Dr. Blake that there had been much talk of corruption in the District Government, and he had selected the Doctor, knowing him to be one of the most conscientious citizens of Washington, in the hope that if anything were wrong, it would be promptly ferreted out and reported.

## A Very Modest Nation.

The Paris Prefecture of Police has come to the conclusion that the word "venereal" is immoral, and has therefore forbidden further announcement of "Courses upon Venereal Diseases." Such courses are hereafter to be announced as "Courses upon Private Contagious Diseases."

## QUERIES AND REPLIES.

## Burns.

Dr. F. N. S., of New York.—The recipe for Dr. BINKERD's salve for burns will be found in the REFORMER, vol. xxiii, p. 24. We republish it as you desire:—

R. Yellow wax, melted and strained, 3i.  
 Linseed oil, raw, 3iiij.  
 Tannin, 3i.  
 Subnitrate of bismuth, 3i.

Heat the wax in a clean tin vessel, add the oil, and stir till they are thoroughly incorporated, then remove from the fire and stir till cold, adding first the tannin and lastly the bismuth. Apply on bits of patent lint to the surface of the burn, previously carefully cleansed.

## Photos.

Dr. E., of Illinois.—Photos of some of the Jefferson College Professors can be obtained, but not regular series. They cost about a quarter a piece.

## Puerperal Eclampsia.

Dr. H. M. H., of Ohio.—We have no list of works especially on this topic. You will find frequent references to various articles upon it in last year's numbers of this journal.

## Medical Directors of Railroads.

Dr. CHARLES P. THAYER, of Burlington, Vt., would be glad to receive the addresses of all Medical Directors of railroads.

## Uterine Diseases.

Dr. D. W. Y., of Maine.—In the vast field of gynecology we do not know which work will suit you best; probably Thomas' *Diseases of Women*. Price \$5.00.

## OBITUARY.

## PROFESSOR GEO. L. ROBINSON.

This promising surgeon died at Baltimore, September 10th, after a brief illness, of typhoid pneumonia.

Dr. ROBINSON was a gentleman of elegant mental culture, a hard student and a close reasoner. His general professional attainments were of a superior order, but for one so youthful in years he was pre-eminently skilled in surgery. This latter attainment was not unappreciated, as was evidenced by the fact of his selection by the Faculty of the College of Physicians and Surgeons, of Baltimore, as Professor of Operative Surgery, and also by his appointment as surgeon to the Baltimore and Ohio Railroad.

## PROFESSOR AUGUSTE NELATON.

This eminent French surgeon died September 21st, after a long and exhausting malady of obscure character. He was born June 17th, 1807; studied under the famous Dupuytren, took his degree December, 1836, and was appointed Professor of Clinical Surgery in the Ecole de Medecine, April, 1861. His great work was the *Elements de Pathologie Chirurgicale*, 4 vols., 1844-1856, a vast repository of surgical information. As an operator he was at once graceful and skillful to a remarkable degree; as a lecturer, fluent and lucid; and always in social intercourse kindly, considerate and patient. The writer of this notice had many opportunities of seeing him in all these relations when the great surgeon was in his prime. With NELATON and Trousseau the two noblest souls of the Parisian Schools have passed away. They have left behind them many élèves profoundly versed in science, but few, indeed, to rival them in purity of aspirations, wide and real sympathy with suffering, and love to all that is great and good.

## MARRIAGES.

BRADLEY-BLANCHARD.—At the residence of Mrs. Dr. John McClintock, in Philadelphia, on Thursday afternoon, September 4th, by the Rev. Jacob Todd, D. H. Bradley, M. D., of Wilkesbarre, and Miss Virginia L. Blanchard, of Philadelphia.